

## Curriculum Vitae: José-Víctor Ríos-Rull, April 2012

### Personal Information and Address

Spanish Citizen  
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Department of Economics  
University of Minnesota  
4-101 Hanson Hall (off 4-179)  
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Minneapolis, MN 55455

### Education

- 1990 Ph.D. in Economics, University of Minnesota. Thesis Advisor: Ed Prescott. Thesis Committee Neil Wallace (chair), Ken Wolpin, Jan Werner, and Dennis Ahlberg.
- 1982 B.A. in Economics Universidad Complutense de Madrid, 1980 B.A. in Sociology Universidad Complutense de Madrid.

### Professional Experience

- 2007- Carlson Professor of Economics, University of Minnesota.
- 2001- Professor of Economics, University of Pennsylvania.
- 1997- Associate Professor of Economics (with tenure), University of Pennsylvania.
- 1997- Senior Economist, Federal Reserve Bank of Minneapolis.
- 1995-1997 Economist, Federal Reserve Bank of Minneapolis.
- 1992-1997 Assistant Professor of Economics, University of Pennsylvania.
- 1990-1992 Assistant Professor of Industrial Administration, GSIA, Carnegie Mellon University.
- 1989-1990 Instructor, GSIA, Carnegie Mellon University.
- 1987-1989 Research Assistant, Federal Reserve Bank of Minneapolis.

### Awards and Honors

- Honorary member of the Spanish Economic Association (2008).
- Fellow of the Econometric Society (2007).
- 2006- Samuel H. Preston Endowed Term Professor of the Social Sciences, University of Pennsylvania.
- Winner of the 2005 Arrow Prize for Senior Economists, "Optimal Time – Consistent Taxation with International Mobility of Capital," (joint with P. Klein and V. Quadrini) awarded by the editors of the B.E. Journals in Macroeconomics.

### Dissertations Advised

#### • University of Minnesota

1. Andrew Glover, "Essays in Heterogeneous Agent Macroeconomics", University of Texas.
2. Machiko Narita, "Essays in Uninsurable Income Risk and Household Behavior", IMF.

3. Jacob M. Short, “Bankruptcy, Incorporation and the Nature of Entrepreneurial Risk”, University of Western Ontario, 2010.
4. Mallory Leung, “A Structural Model of Sex Selective Abortion: The Effect of One-child Policy on Sex ratio imbalance in China”, visiting Washington University, St. Louis.

• **University of Pennsylvania**

5. Omer K. Parmaksiz, “Fiscal Policy, Default and Emerging Market Business Cycles”, Middle East Technical University (METU), 2010.
6. Se-Kyu Choi, “Essays in Demographics and the Theory of Labor Share”, Universitat Autònoma de Barcelona, 2009.
7. Raül Santaaulàlia-Llopis, “Aggregate Effects of AIDS on Development”, Washington University 2008.
8. Hong Chong Cho, “Essay in Health and Wealth among Married Couples”, 2008, Dankook University.
9. Irina Telyukova, “Household Need for Liquidity and the Credit Card Debt Puzzle”, UCSD, 2007.
10. Jayhwa Hong, “Essays on Life Insurance and Household Decisions”, University of Rochester, 2006.
11. Fernando Martin, “Essays on fiscal policy and government debt”. Simon Fraser University.
12. Gabriel Basaluzzo, “On entrepreneurial teams in financially constrained economies”. ITAM.
13. Makoto Nakajima, “Essays in Macroeconomics”, University of Illinois, Philly Fed.
14. Yaz Terajima, “Education and Self-Employment: Relationships between Earnings Inequality and Wealth Inequality”, Bank of Canada.
15. Shinichi Nishiyama, “Measuring altruism versus measuring patience”, CBO, Georgia State.
16. Giovanni Violante, “Technological Progress, Skill Accumulation, and Wage Inequality”. UCL, NYU.
17. Vincenzo Quadrini, “Entrepreneurship, Saving and Social Mobility”. UPF, USC.
18. Luis Manuel Cubeddu, “The Role of Household Composition, Formation and Dissolution in Life Cycle Economies: Theory and Evidence”, IMF.
19. Giorgio Belletini, “Three Essays on the Political Economy of Redistribution”. U Bologna.

• **Carnegie Mellon University**

20. Kjetil Storesletten, “On the Economics of Immigration”, IIES, University of Oslo, Mpls Fed.
21. Stephane Pallage (coadvisor Finn Kydland), “Dynamic Games and Growth Theory”, UQAM.

• **Universidad Carlos III de Madrid**

22. Ana Castañeda (coadvisor Javier Díaz): “Topics in Large Economies”, Universitat Pompeu Fabra, Barcelona.
23. Victoria Osuna (coadvisor Juanjo Dolado): “Topics in Labor Market Regulations”, Universidad Pablo Olavide, Sevilla.
24. Virginia Sanchez Marcos, September, (coadvisor J. Ruiz Castillo). 2002. “Topics in Family Choices”, Universidad de Cantabria.
25. Carlos Bethencourt, September 2003, (coadvisor Vincenzo Galasso): “Essays on the Economic Implications of Population Aging”, Universidad de La Laguna.

26. Filippo Scoccianti, (coadvisor Antonia Diaz) June 2008, “Essays in Dynamic Macroeconomics”, GREQAM, Bank of Italy.

• **Universitat Pompeu Fabra**

27. Ferdinando Regalia. “The Role of Wage Dynamics on Household Formation”, (coadvisor Fabio Canova). Inter-American Development Bank.

**Contract and Grant Support**

- 2012–2015 NSF Grant SES–1156228. Amount awarded is \$258,207 for three years.
- 2005 NICHD—Mellon-PSC, PARC, Boettner Center pilot project. Amount awarded is \$22,000 for one year.
- 2004–2007 NSF Grant SES–0351451. Amount awarded is \$226,045 for three years.
- 2003 PARC/Boettner pilot project. Amount awarded is \$20,000 for one year.
- 2000–2003 NSF Grant SES–0079504. Amount awarded is \$236,335 for three years.
- 1999 PARC award from the NIH through the Center of Population Studies. Approximate amount \$30,000.
- 1998 University of Pennsylvania Research Foundation. Amount Awarded \$10,000.
- 1993-98 NSF Grant SBR-9309514. Amount awarded is \$150,202 for three years.
- 1994 University of Pennsylvania Research Foundation. Amount Awarded \$7,000.
- 1991-93 NSF Grant SES-9110991. Amount awarded is \$63,195 for two years.
- 1990 Dean Research Grant. Amount awarded \$1,645.
- 1990 Faculty Development Grant, CMU. Amount awarded \$2,500.

**Publication List**

• **Publications in Refereed Journals**

1. “Constrained-Efficient Allocations in the Growth Model with Idiosyncratic Shocks”, with Julio Davila, Jay Hong and Per Krusell. Forthcoming, *Econometrica*.
2. “Life Insurance and Household Composition” with Jayhwa Hong. Forthcoming *American Economic Review*.
3. “Redistributive Shocks and Productivity Shocks” joint with Raül Santaeulàlia-Llopis. *Journal of Monetary Economics* (2010) Volume 57, pp. 931-948.
4. “Aggregate and Welfare Effects of Redistribution of Wealth Under Inflation and Price-Level Targeting” joint with Césaire A. Meh and Yaz Terajima. *Journal of Monetary Economics* (2010) Volume 57, pp. 637-652.
5. Understanding the Dynamics of Labor Share: The Role of Noncompetitive Factor Prices Joint with Se-Kyu Choi. *Annals of Economics and Statistics* (2009) Volume 95/96, pp. 251-278.
6. “Financial Integration, Financial Deepness and Global Imbalances” with Enrique G. Mendoza and Vincenzo Quadrini. *Journal of Political Economy*, (2009) Volume 117, 3, 371-410. (Leading article). NBER WP 12909.
7. “On the Living Arrangements of Elderly Widows”, with Carlos Bethencourt. *International Economic Review*, Vol. 50, Issue 3, pp. 773-801, August 2009.

8. "Time-Consistent Public Policy", with Paul Klein and Per Krusell. *Review of Economic Studies*, (2008) Volume 75, No. 3, 789-808.
9. "A Finite-Life Private-Information Theory of Unsecured Debt" with S. Chatterjee and D. Corbae. *Journal of Economic Theory*, (2008), 1422, 149-177.
10. "A Quantitative Theory of Unsecured Consumer Credit with Risk of Default", with S. Chatterjee, D. Corbae, and M. Nakajima. *Econometrica*, Vol. 75, No. 6 (November, 2007), 1525-1589, (leading article).
11. "Social Security, Life Insurance and Annuities for Families" with Jay H. Hong. *Journal of Monetary Economics*, Volume 54/1, 118-140 (2007) (Carnegie-Rochester Proceedings).
12. "Optimal Time-Consistent Taxation with International Mobility of Capital" with Paul Klein and Vincenzo Quadrini. *Advances in Macroeconomics, The B.E. Journals in Macroeconomics* Volume 5, No 1, Article 2 (2005). Awarded the 2005 Arrow Prize for Senior Economists.
13. "On the Equilibrium Concept for Overlapping Generations Economies", with Edward C. Prescott. *International Economic Review*, November 2005 - Vol. 46 Issue 4 Page 1065-1080.
14. "The Success and Failure of Reforms in Transition Economies", with Stephen L. Parente. *Journal of Money Credit and Banking*, Vol 37. 1 23-42 (February 2005).
15. "Accounting for earnings and wealth inequality", (with Ana Castañeda and Javier Díaz-Giménez). *Journal of Political Economy*, Vol. 111, no 4, 818-857, (2003).
16. "Time Consistent Optimal Fiscal Policy", with Paul Klein. *International Economic Review*, Vol. 44, Issue 4, 1217-1246 (November 2003).
17. "Precautionary Savings and Wealth Distribution under Habit Formation Preferences" with Antonia Diaz and Josep Pijoan-Mas. *Journal of Monetary Economics*, Vol 50, no 6, 1257-1291 (September 2003).
18. "Families as Shocks" (with Luis Cubeddu) *Journal of the European Economic Association* Volume 1, Issue 2-3, 671-682 (April/May 2003).
19. "Implementing the 35 Hour Workweek by Means of Overtime Taxation" with Victoria Osuna. *Review of Economic Dynamics*, Vol. 6, Issue 1, 179-206 (January 2003)
20. "Politico-Economic Transition" (with Per Krusell). *Review of Economic Design*, Vol. 7, no 3. 309-329 (November 2002).
21. "College Attainment of Women", with Virginia Sánchez Marcos. *Review of Economic Dynamics*, Volume 5, Issue 4, Pages 965-998 (October 2002).
22. "Inequality, What do we know?", published under the title "Desigualdad, ¿Que sabemos?" in *Investigaciones Económicas* Vol. XXVI, 2002, 221-254.
23. "Population Changes and Capital Accumulation: The Aging of the Baby Boom". *Advances in Macroeconomics, The B.E. Journals in Macroeconomics*, Number 1, Article 7., May 2001.
24. "Capital-Skill Complementarity and Inequality" (with Per Krusell, Lee Ohanian and Giovanni Violante). *Econometrica*, Vol. 68 (5) 1029-53, September 2000 (leading article).
25. "Consumption Smoothing in Island Economies: Can Public Insurance Reduce Welfare?", with Orazio Attanasio. *European Economic Review*, Vol. 44 (7) pp. 1259-1289. June 2000.
26. "On the Size of the U.S. Government", (with Per Krusell). *American Economic Review*, Vol. 89 (5) 1156-81. December 1999.
27. "Exploring the Income Distribution Business Cycle Dynamics", (with Ana Castañeda and Javier Díaz-Giménez). *Journal of Monetary Economics*, Vol. 42, August 1998, 93-130.

28. "Politico-Economic Equilibrium and Growth" (with Per Krusell and Vincenzo Quadrini). *Journal of Economic Dynamics and Control*, Volume 21, 1, January 1997, 243-272. Published in Spanish under the title "Equilibrio Político Económico y Crecimiento Económico", *Cuadernos Económicos de ICE*, Number 58, 1995, 225-255.
29. "The Balance of Payments and Borrowing Constraints: An Alternative View of the Mexican Crisis" (with Andy Atkeson), *Journal of International Economics*, Volume 41, 3-4, November 1996, 331-350. NBER WP 5329.
30. "Life-Cycle Economies and Aggregate Fluctuations". *Review of Economic Studies*, Volume 63, July 1996, 465-490.
31. "Are Consumption Taxes Really Better than Income Taxes", (with Per Krusell and Vincenzo Quadrini). *Journal of Monetary Economics*, Volume 37, June 1996, 475-504.
32. "Vested Interests In a Positive Theory of Stagnation and Growth", (with Per Krusell). *Review of Economic Studies*, Volume 63, April 1996, 301-331.
33. "On the Quantitative Importance of Market Completeness", *Journal of Monetary Economics*, Volume 34, December 1994, 462-496.
34. "Working in the Market, Home Production and the Acquisition of Skills: a General Equilibrium Approach", *American Economic Review*, Volume 83, September 1993, 893-907.
35. "Classical Competitive Analysis of Economies With Islands", (with Ed Prescott), *Journal of Economic Theory*, Volume 57, July 1992, 73-98.
36. "Business Cycle Behavior of Life-Cycle Economies with Incomplete Markets". Published under the title "Comportamiento de los Ciclos Económicos en Economías de Ciclo Vital con Mercados Incompletos". *Cuadernos Económicos de ICE*, Número 51, 1992, 173-96.
37. "Effects of Public Participative Credits on Firms", (with Gonzalo Mato), published under the title "Efectos de los Créditos Participativos en la Financiación de las Empresas", *Investigaciones Económicas*, Vol. X, 1986, 173-84.

• **Other Publications**

38. "Facts on the Distributions of Earnings, Income, and Wealth in the United States: 2007 Update," with Javier Díaz-Giménez, and Andrew Glover, *Federal Reserve Bank of Minneapolis Quarterly Review*, February 2011, Vol. 34 No. 1.
39. "Updated Facts on the U.S. Distributions of Earnings, Income and Wealth", with Santiago Budría, Javier Díaz-Giménez, and Vincenzo Quadrini,, *Federal Reserve Bank of Minneapolis Quarterly Review*, Summer 2002.
40. "Taxes, Benefits, and Careers: Complete Versus Incomplete Markets" Comment on by Lars Ljungqvist and Thomas J. Sargent. *Journal of Monetary Economics* Volume 55, Issue 1, January 2008, Pages 126-128 Carnegie-Rochester Conference Series on Public Policy: Advances in Dynamic Public Finance April 20-21, 2007.
41. "On the Social Costs of Financial Globalization without Financial Development", with Enrique G. Mendoza and Vincenzo Quadrini. NBER International Seminar on Macroeconomics (ISOM), annual, 2007. NBER WP 13412.
42. "An Aggregate Economy with Different Size Houses" with Virginia Sánchez-Marcos. Papers and Proceedings of the *Journal of the European Economic Association*, April-May 2008, Vol. 6, No. 2-3, Pages 705-714.

43. "Default and Aggregate Fluctuations in Storage Economies" with Makoto Nakajima. Chapter 7, *Frontiers In Applied General Equilibrium Modeling*, pp. 127-150, 2005 Cambridge University Press.
44. "Consumption Smoothing and Extended Families" with Orazio P. Attanasio. Ch 6. pp. 209-242 *Advances in economic theory: Eighth World Congress Vol. III*, Edited by M. Dewatripont, L. Hansen and S. Turnovski, 2003 Cambridge University Press.
45. "Updated Facts on the U.S. Distributions of Earnings, Income and Wealth", with Santiago Budría, Javier Díaz-Giménez, and Vincenzo Quadrini,, *Federal Reserve Bank of Minneapolis Quarterly Review*, Summer 2002.
46. "Offentlig utgiftspolitik och tidsinkonsistens" (Public expenditure and time inconsistency) (with Paul Klein and Per Krusell) *Ekonomisk Debatt* (Journal of the Swedish Economic Association) 30(1), 2002.
47. "Consumption Smoothing and Extended Families: The Role of Government Sponsored Insurance", with Orazio Attanasio. Chapter 10 in *Shielding the Poor (Social Protection in the Developing World)*, Edited by Nora Lustig, Brookings Institution Press, 2001, Washington DC.
48. "The Research Agenda: José-Víctor Ríos-Rull on the Determinants of Inequality", *Review of Economic Dynamics Newsletter*, Volume 3, Issue 1, November 2001.
49. "Computation of Equilibria in Heterogenous Agent Models". In *Computational Methods for the Study of Dynamic Economies: An Introduction*, Edited by Ramón Marimón and Andrew Scott, 1999 Oxford University Press.
50. "Simulation-Based Estimation of a Nonlinear Latent Factor Aggregate Production Function" (with L. Ohanian, G. Violante and P. Krusell), in *Simulation Based Inference in Econometrics: Theory and Applications*, edited by R. S. Mariano, T. Schuermann and M. Weeks, 1999, Cambridge University Press.
51. "Dimensions of Inequality: Facts on the U.S. Distribution of Earnings, Income and Wealth" (with Javier Díaz-Giménez and Vincenzo Quadrini). *Federal Reserve Bank of Minneapolis Quarterly Review*, Volume 21, Spring 1997, pp. 3-21.
52. "Understanding the U.S. Wealth Distribution" (with Vincenzo Quadrini). *Federal Reserve Bank of Minneapolis Quarterly Review*, Volume 21, Spring 1997, pp. 22-36.
53. "Discussion of Inequality and Growth by Roland Benabou". *NBER Macroeconomics Annual 1996*, The MIT Press, Cambridge, 1996.
54. "Models with Heterogeneous Agents". Chapter IV in *Frontiers of Business Cycles Research*, edited by Tom Cooley, 1995 Princeton University Press, Princeton.

• **Working Papers**

55. "Methods versus Substance: Measuring the Effects of Technology Shocks on Hours" joint with Frank Schorfheide, Cristina Fuentes-Albero, Raul Santaeulalia-Llopis and Maxym Kryshko. Under revision for resubmission (Dec 2011). NBER 15375.
56. "Business Cycles and Household Formation: The Micro versus the Macro Labor Elasticity" with Sebastian Dyrda and Greg Kaplan. NBER WP 17880. Submitted.
57. "Inter-generational Redistribution in the Great Recession" with Andrew Glover, Jonathan Heathcote and Dirk Krueger. NBER WP 16924.
58. "Demand Shocks as Productivity Shocks" with Yan Bai and Kjetil Storesletten.

59. “What Accounts for the Increase in Single Households?”, with Ferdinando Regalia, and Jake Short. Under revision for resubmission.

60. “Marital Risk and Capital Accumulation”, with Luis Cubeddu.

• **Work in Progress (already presented in seminars)**

61. “Default and Aggregate Fluctuations in Growth Economies” with Makoto Nakajima.

62. “House Price Movements” with Virginia Sanchez-Marcos.

63. “Debt without Commitment” with Fernando Martin and Per Krusell.

64. “A Technological exploration of the dynamics of Labor Share” with Se Kyu Choi.

65. “Credit Scoring and the Competitive Pricing of Default Risk” with S. Chatterjee and D. Corbae.

66. “The Role of the Sex Imbalance in Shaping Marital Status” with Shannon Seitz and Satoshi Tanaka.

67. “Health and Heterogeneity” with Josep Pijoan.

68. “Education, Family Composition, Fertility and Trend” with Carlos Bethencourt and Andy Glover.

69. “Credit Lines” joint with Xavier Mateos-Planas.

70. “Inflation, Demand for Liquidity, and Welfare”. Joint with Shutao Cao, Cesaire A. Meh, and Yaz Terajima.

71. “Two-step Mortgage and Home Equity” with Borghan N. Narajabad.

72. “Models of Government Expenditure Multipliers”. Policy piece joint with Sebastian Dyrda.

**Other Honors**

- Elected Member of the Board of the Spanish Economic Association (2004).
- Research Associate of the National Bureau of Economic Research’s Program on Economic Fluctuations and Growth.
- Coauthor (with Orazio Attanasio) of one of the Invited Sessions of the 2000 World Congress of The Econometric Society.
- 1994: *Simon Kuznets Term Professor in Economics* at the University of Pennsylvania.
- Research Fellow of Center for Economic Policy Research (CEPR).
- Research Associate of National Bureau of Economic Research (NBER).
- Fellow of the Euro Area Business Cycle Network.
- Research Associate of the Population Studies Center at the University of Pennsylvania.

**Public Lectures / Panels**

- Nobel Prize Luncheon Lecture, American Economic Association, 2006.
- Invited Speaker Summer Workshop in Macroeconomics, Sponsored by the Vice-Chancellor’s Strategic Research Development Fund) ”Inequality and Bankruptcy”, Auckland February 2005.
- Plenary Speaker in the XXIV Simposio de Análisis Económico (1999) in Bellaterra, Barcelona, Spain.

- Plenary Speaker, 1998 Meetings of the Society of Economic Dynamics in Philadelphia.
- Keynote Speaker, “Labor Market Outcomes : A Transatlantic Perspective”, January 2008, Paris.
- Session Plénière, Les journées doctorales de l’ADRES, Toulouse, January 2008.

### **Editorial Activities**

- Co-editor, *Quantitative Economics*, (2009-present).
- Foreign Editor, *Review of Economic Studies* (2002-2005).
- Board of Editors of the *International Economic Review*, (2002-2006).
- Former Associate Editor, *Journal of the European Economic Association* (2005-2008).
- Former Associate Editor, *Review of Economic Dynamics*, the Journal of the Society for Economic Dynamics.
- Former Associate Editor, *Macroeconomics Dynamics* published by Cambridge University Press.

### **Other Professional Activities**

- Member of the Consejo Científico of IMDEA, Instituto Madrileño de Estudios Avanzados en Ciencias Sociales, 2007-present.
- Member of the 2006 Scientific Committee of CONSOLIDER.
- Consultant, Federal Reserve Bank of Minneapolis, 2007-present.
- Member of the Advisory Board for the Laboratory for Aggregate Economics and Finance (LAEF), Santa Barbara, 2005-present.
- Senior Researcher of the Centro de Análisis y Estudios Ríos Perez (CAERP).

### **Conference Organization**

- Coorganizer with Gary Hansen and Eric French of the 2012 Health and Mortality Conference LAEF, UCSB.
- Coorganizer with Richard Rogerson of the 2010 Micro and Macro Models of the Labor Market, Conference LAEF, UCSB.
- Coorganizer with Michael Golosov of the 2009 “Minnesota Macro Workshop in Economic Theory”.
- Coorganizer with Tony Smith and Mark Huggett of the 2008 Yale/Cowles “Conference Macroeconomics with Heterogeneous Households”.
- Co-leader with Orazio Attanasio and Chris Carroll of the NBER group “ Aggregate Implications of Macroeconomic Consumption Behavior”, 1995 to 2012.
- Organizer of one of the SEDC Sessions in the 1994 AEA meetings in Boston and of two of the Econometric Society in 2007.
- Member of the Selection Committee of the 1993 and 1995 Meetings of the Society for Economic Dynamics and Control.

### **Teaching**

1. 2010, 2011 Quantitative Macroeconomics.
2. 2008, 2009, 2010, 2011, 2012, 4th Mini of the Macroeconomics First year Sequence.
3. 2008, 2009, 2010, 2011, 2012, Econ, 8185, Wages and Employment.
4. 2002, 2003, 2004, 2005, 2006, 2007, Economics 702, Macroeconomics First year Ph.D. Course.
5. 2002, 2003, 2004, 2005, Economics 4, Macroeconomics.
6. 2002, 2003, 2004, 2005, 2006 Economics 714, Quantitative Macroeconomic Theory Second year Ph.D. Course.
7. 2000 Public Finance, (undergraduate course), Econ 31.
8. 1999 and 2000, Public Finance, (Ph.D. Course), University of Pennsylvania, Econ 751.
9. 1998, and 1999 Applied Quantitative Macroeconomics, (Ph.D. Course), University of Pennsylvania, Econ 714.
10. 1998: Applied Quantitative Macroeconomics, (Ph.D. Course), University of Pennsylvania.
11. 1997: Topics in Economic Theory: Computational Economics, (Ph.D. Course), and Econ 2, University of Pennsylvania,
12. Guest Lecturer in the 7th, 8th and 9th (1996, 1997 and 1998) European Economic Association Summer School in Florence, in Madrid and in Paris.
13. 1996: Topics in Labor Economics, University of Minnesota. (Ph.D. Course).
14. 1996: Topics in Macroeconomics, Universidad Carlos III de Madrid. (Ph.D. Course).
15. 1997 and 1994: Economics 712. A second year Ph. D. course in applied Macroeconomics with special emphasis in computation, University of Pennsylvania.
16. 1997, 1994 and 1993: Instructor of Economics. Teaching two Sections of Introductory Macroeconomics, Econ 2, in Spring, and another 2 in the Fall of 94, University of Pennsylvania.
17. 1994 and 1993: Economics 704. Teaching in the first year Ph.D. Economics Sequence, Second Semester Macroeconomics, University of Pennsylvania.
18. 1992: Teaching in the first year Ph.D. Economics Sequence, General Equilibrium, Carnegie Mellon University.
19. 1992: Instructor of Economics. Teaching two Sections of Intermediate Macroeconomics in the Spring, Carnegie Mellon University.
20. 1992 and 1990: Teaching “Topics in Advanced Macroeconomics” in the PhD. program. The course covers recent advances in computable general equilibrium economies with heterogeneous agents, Carnegie Mellon University.
21. 1990: Instructor of Economics. Teaching two Sections of Intermediate Macroeconomics in Spring, and two more in the Fall, Carnegie Mellon University.
22. 1990: Independent Studies supervisor, University of Minnesota
23. 1988: Teaching Assistant in a Game Theory Honors Course, University of Minnesota
24. 1987: Teaching Associate, Money and Banking intermediate course, University of Minnesota.
25. 1986-1987: Teaching Associate. Assisted Professors Neil Wallace and Sumru Altug with the Macroeconomics Graduate courses, University of Minnesota
26. 1983-1984: Teaching Associate, Intermediate Macroeconomics course, Universidad Pontificia de Comillas, ICADE, Madrid, Spain.

27. 1982-1984: Teaching Assistant, Recitations leader for Intermediate Microeconomics and for Advanced Macroeconomics, Universidad Complutense de Madrid (Spain).

### **Refereeing**

- Referee for the National Science Foundation, and for the Canadian Council for the Sciences.
- Referee for the Journal of Political Economy, for the American Economic Review, the Journal of Economic Theory, the Journal of Economic Dynamics and Control, Economic Theory, the Review of Economic Studies, the International Economic Review, the Journal of Monetary Economics, the Canadian Journal of Economics, Research in Labor Economics, the European Economic Review, the Journal of Human Resources and the Review of Economic Dynamics.